

PUBLIC EDUCATION AND FIELD ARCHAEOLOGY: A PRACTICAL GUIDE FOR EFFECTIVE INTERPRETATION

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ABSTRACT

Public awareness of archaeology fosters appreciation, protection and, indirectly, funding. The goal of this paper is to present methods for archaeologists to use when interpreting archaeology to the public, especially elementary school children. The most frequent places of interaction are class field trips to an archaeological site or visits by an archaeologist to a classroom. Presentations need 3 basic ingredients: pre-visit materials, the visit, and follow-up activities. Consistency in the development of all 3 steps and attention to the maturity of the students will produce a more effective learning environment.

INTRODUCTION

The purpose of this paper is to present methods for archaeologists to use when interpreting archaeology to the public, particularly school age children. Professional archaeologists need involvement with informal education of the public to teach the value of archaeology and to create enduring interest. A visit to an excavation is an excellent opportunity for the public to interact with the archaeologist, providing high interest and high visibility. Yet, when an excavation is planned, archaeologists often avoid involvement with the public. Why do archaeologists hesitate to invite the public to their sites? Some reasons are: safety of visitors, legal concerns, losing work time, inconveniences, inducing additional costs, schedule uncertainties, and lack of training on how to involve the public. Addressing all these issues is beyond the scope of this paper. It is possible, however, to design a model to facilitate field trips, removing some barriers that prevent archaeologists from sharing excavations with the public. This model is targeted at elementary education, but the techniques can be adapted to junior high, high school, and adults.

Issues regarding the process and content goals of the field trip will be discussed, tak-

ing into consideration a few educational principles and the California History-Social Science Curriculum Framework. Details of how to plan and carry out a field trip will follow. A field trip is an opportunity to extend learning beyond what is possible in a classroom (Brehm 1969:preface). Professionals want the public to understand and value archaeology as well as having a meaningful learning experience.

The educational goal (process) is to enrich the elementary classroom experience by ensuring that field trips are relevant to the curriculum. A field trip should be fun, but it also needs substance to justify taking time away from the classroom. In combining archaeology and educational concerns, an effective field trip can be developed that will promote the value and understanding of archaeology.

The archaeological goal (content) of a field trip is to expand the public's awareness of archaeology beyond "things" or artifacts to the context of those artifacts. What does the context of an artifact tell us that the artifact does not do alone? While this may appear to be a simple question to the archaeologist, it is an important goal for public awareness. Accordingly, focus on the interpretation of "who lived there" and what can

be learned by doing archaeology. In this way, Peter Piles, an archaeologist for the Coconino National Forest, educates the public about archaeology with 2 content-related goals. He endeavors to instill a respect for the artifacts and the people who once used them, and to teach children and parents that the sites are of great value because they show how people have lived in the past (Elston 1992:2).

EDUCATIONAL PRINCIPLES

Educational researchers study how people learn (Johnson et al. 1988:322). Many factors influence learning such as the presentation and reception of information. Presentation is the method of showing or teaching the material to the learner. Reception involves the ability of the learner to acquire the new knowledge. These factors are taken into consideration when a teacher prepares a lesson and are equally important when preparing a field trip.

New knowledge is acquired differentially by individuals depending on their personal learning style. Learning styles are the sensory mode or way that people learn most easily. These are either visual, auditory, or kinesthetic (hands-on) and vary from child to child. For example, lectures are primarily spoken and will benefit auditory learners most. Visual learners may prefer instruction that is written on the board or in the form of hand-outs. Activities that involve objects to manipulate benefit kinesthetic or hands-on learners. It is important to keep this in mind when interacting with a group of students so you can teach to all. The most effective experience will involve aspects of all 3 learning styles.

Learning takes place when new information is linked to previously acquired knowledge. In other words, learning is made relevant to the student when it is connected to something they already know, and information must be presented in stages for the best retention. Methods of instruction can reinforce learning by introducing concepts, allowing the students to use them and then participate in activities that reinforce the learning (Lemlech 1990).

The California History-Social Science Curriculum Framework

The State of California has developed a "framework" for each subject of the school curriculum (grades K-12). These frameworks are developed for planning the content of each grade and are sequentially organized. The History and Social Science framework governs the material that is related to archaeology (History-Social Science Curriculum Framework and Criteria Committee 1988). Each grade has its own curriculum focus (Table 1). For example, the fourth grade curriculum "California--A Changing State", includes a unit called Pre-Colombian Settlement and People. The unit is divided into the following sections: Major language groups, distribution, social organization, economic activities, legends, beliefs and use of natural setting. Students should learn to "analyze how geographical factors have influenced the location of settlements, then and now, [and] should have an opportunity to observe how the past and the present may be linked by similar dynamics" (ibid.:47). Teachers will base their curriculum on these points. Archaeologists should tailor their presentations to parallel these topics and connect to the students knowledge.

THE FIELD TRIP

With these concepts in mind, the field trip experience can be broken down into 3 parts, the pre-trip, the trip and the post trip. They are related and continuous experiences (Brehm 1969:77). The pre-trip consists of preparing for the field trip, the trip is the experience itself and the post-trip is follow up reinforcement of what has been learned. Each of these 3 steps is an important part in the overall learning experience. The 3 steps should be guidelines. Let your professional experience and creativity design the rest. The main point to grasp is the concept of spreading the learning experience over time. Learning is like building a structure: you need a secure foundation before you can build the floor, walls and roof. Below are suggestions as to how a field trip can be organized.

Table 1

History-Social Science Curriculum, 1988 State of California, Grades K-12	
Grade	History/Social Science Curriculum Focus
K.	Learning and Working Now and Long Ago
1.	A Child's Place in Time and Space
2.	People Who Make A Difference
3.	Continuity and Change
4.	California--A Changing Place
5.	United States History and Geography: Making a New Nation
6.	World History and Geography: Ancient Civilizations
7.	World History and Geography: Medieval and Early Modern Times
8.	United States History and Geography: Growth and Conflict
9.	Elective Courses in History-Social Science
10.	World History, Culture and Geography: The Modern World
11.	United States History and Geography: Continuity and Change in the Twentieth Century
12.	Principles of American Democracy Economics
Grade Four:	California--A Changing Place
	Pre-Columbian Settlements and People Unit
	Major Language Groups
	Distribution
	Social Organization
	Economic Activities
	Legends
	Beliefs
	The Use of Natural Setting

Pre-Visit

The pre-visit is the first step of the field trip. The purpose is to plan the trip and provide the teacher with materials that are used to prepare the students. Before embarking on a field trip, it is important to plan. Think about the site and the types of information that will be of interest to children.

First, contact can be made with a teacher either through local schools and organizations or with an inquisitive teacher visiting you at the site. Second, arrange a meeting

with that teacher with the purpose of orienting both the teacher and the archaeologist. Discuss the purpose of the field trip as the teacher sees it. Is this a fun informative day out of the class or does this relate directly to the class curriculum? It is possible that the teacher would like you to orient the trip to integrate with the curriculum (remember the social science framework).

Discuss the students. The teacher and the archaeologist may have different concerns. Inform the teacher of the appropriate behavior for children at an archaeological site in terms of safety, respect, keeping distance from excavation units or tools, and not interfering with professional work. The teacher may need to know about practical issues such as a good lunch location, rest rooms, and availability of water at the site.

The archaeologist needs to know the maturity level of the students, their academic level and knowledge of archaeology, the types of questions they will ask, their special needs (i.e., handicapped students), and the type of discipline used by the teacher. This information will give you a better idea of how to tailor the trip to the students whose age, maturity, and comprehension will dictate the type of vocabulary to use. The type of questions they will ask tells you what types of interests and level of understanding they have. Request that children wear name tags: They will respond better if you can call them by name. Ask the teacher to set up a buddy system for the trip. Children are easier to watch if they are paired.

Finally, the archaeologist must provide materials to the teacher, who needs assistance in preparing the students. Most teachers do not have background knowledge or expertise in archaeology, nor do they have the time to research what is common knowledge to professional archaeologists, and archaeological literature can be difficult to access. Material supplied should answer the following questions: what we are going to see, why we are going to see it, and how to observe it (Mount et al. 1979:8). Formulate a thematic approach to the trip. Ask the teacher to stress the factual and fictional knowledge of Native Americans as well as archaeology prior to the field trip. It is

important to initiate the children's learning process before they arrive at the site. As was mentioned earlier, learning is linked to already acquired knowledge. The pre-visit functions as the foundation for the field trip, by providing details they will need to know when they visit the site.

The following are types of materials that teachers find useful: vocabulary list, bibliography, film list, photographs, artifacts, and raw materials (Huddleson 1991:5). These materials provide auditory, visual, and kinesthetic learning experiences (learning styles) and will be used in preparing lessons and activities for the students.

Vocabulary lists are extremely important because many of the terms that are common to archaeology are not widely known. Provide the teacher with a list of words with definitions that will be used during the field trip.

Bibliographies are important because books can be used by the teacher to prepare a lesson or can be provided to the children for interest reading. Include 2 levels of books representing adult and children's reading levels.

Films can provide background information on archaeological methods, Native American culture and prehistoric migrations. They are both visual and auditory and often captivate students. University of California Extension Media Center (1991) offers over twenty films that relate to these themes. A video tape of archaeologists working that explains their purpose and technique, will let the students know what to expect on the field trip.

Photographs with descriptions can be used to develop a lesson or a bulletin board. The bulletin board is something the children will see daily which will build excitement.

Hands-on materials, such as artifacts, with descriptions and questions will familiarize the students with the types of materials the inhabitants of the site used. Think about ways to compare these items to tools or manufacturing processes we use today.

All of these items will pique the interest of the students. You want them to be very excited about the trip. This is new to them. The more prepared they are for the field trip, the better questions they will ask at the site, reflecting their level of interest.

The Visit

Choreograph the field trip in advance. How will you move the students around the site? Los Angeles Unified School District (LAUSD) mandates that 2 classes must go on each field trip in order to maximize the usage of the bus. Other school districts have comparable regulations. How can you manage 60 - 70 students plus chaperons around the site and teach? Ask the teacher to have pre-designated groups of 10-15 people to circulate around the site.

Separate the site into the same number of activity areas as groups of students (Figure 1). Discuss different concepts or topics at each area. For example, archaeological methods, Native American material culture, site formation process, and Native American culture are different topics, each of which have assistants who will either be stationed at an activity area or who will move with the students to each area. Spend 15 to 20 minutes at each activity area.

Design ways to prepare the students to observe at the site by preparing questions that will make them think. One useful technique in focusing the children's attention is to give them a questionnaire to answer while at the site. The questions should be a combination of both closed and open ended questions. Closed-ended questions have a specific answer, such as a fact. For example, how old is the site? Open-ended questions have multiple answers. For example, how is the life style of these people different from yours? Include questions from each activity area that stress your thematic approach, for example fact versus fiction.

Imagine it is now the day of the field trip and the children have just arrived at the site. They have been exposed to the vocabulary, have read a book, watched a film, looked at photographs, and held artifacts. They are excited to see what a real site looks

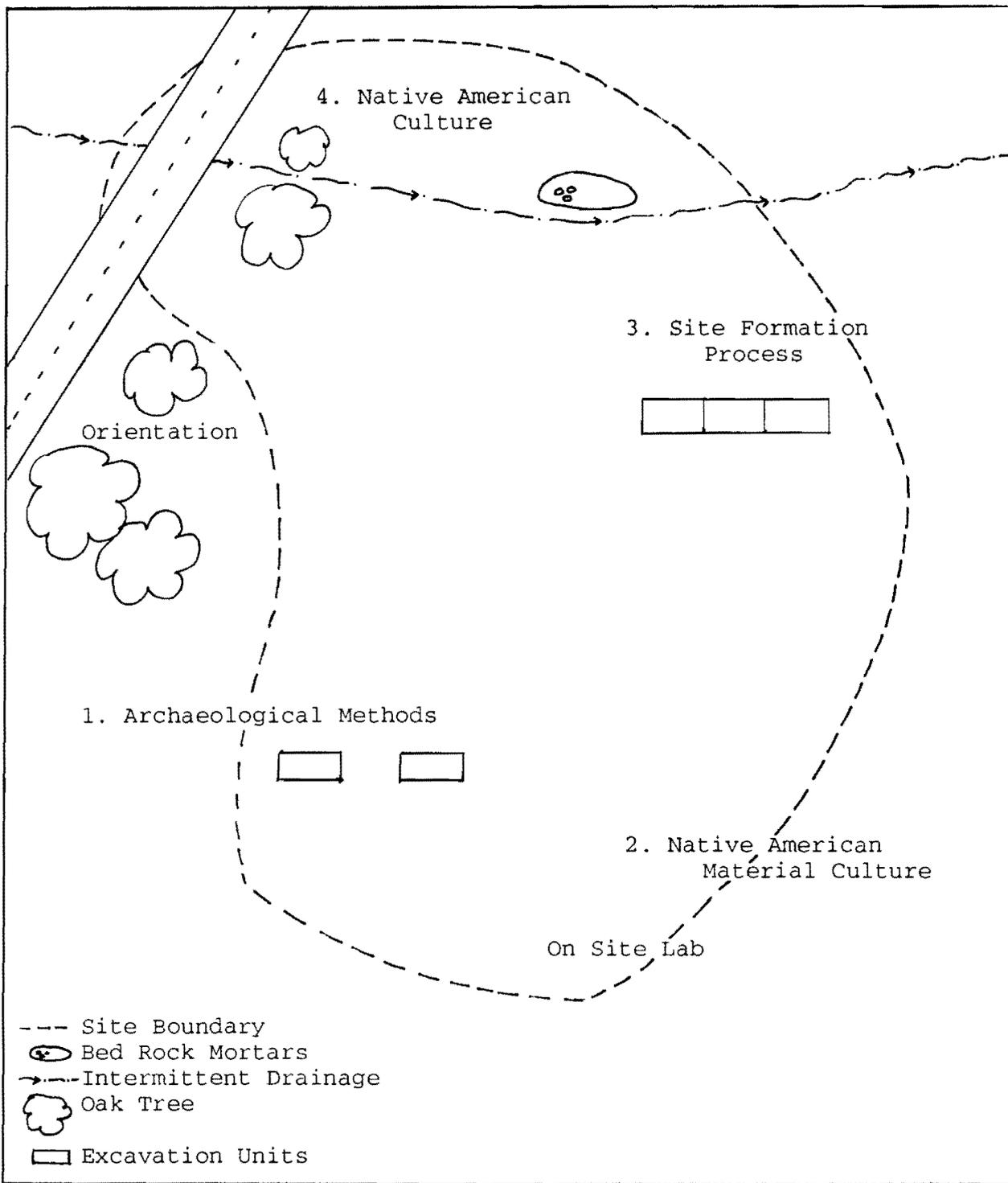


Figure 1. Fictitious shell midden.

like. Begin the trip with general statements to the whole group. Tell them something about yourself: who you are and what it means to be an archaeologist. Explain why they are here today (objective) and how the field trip will progress. Introduce the other group leaders and briefly describe their role at the site. Stress how you want the students to conduct themselves. This should be consistent with what you discussed earlier with the teacher. The orientation will give them time to become oriented to the locale before rushing into an activity.

During the visit, do not get too complicated in discussing archaeological science, unless the children are mature enough. Pick 3 main points to stress at each activity area and have all other information support these points. Simplicity will be easier to comprehend. For example, referring to Figure 1, activity area 2 is Native American material culture. Discuss 3 points that are important such as hunting, food processing and clothing. Supporting information can include the technology used in making the tools used, how they are used and who used them. Obviously, you can not talk about everything.

Maintain good student attitudes by informing students, ensure that all students can hear and are comfortable, pose questions to them, use summary comments when moving from one topic to the next, and be enthusiastic (McKay and Parson 1986:45). Show them the type of interest you expect. Provide time for observation and questions and keep the experience lively (Swann 1978:5).

Give the students an opportunity to use what they have learned by asking them questions that require them to assimilate the information to develop an answer. Be watchful of the children's attention span. To estimate a child's attention span multiply their age by 4 minutes to reach the total number of minutes for the activity. If you lose their attention, move on to a new topic or place (Hoke 1991:21).

Post-Visit

The purpose of the post-visit is to reinforce what was learned on the field trip.

This is the teacher's responsibility and will take place in the classroom in the days and weeks that follow the field trip. An archaeologist can suggest these ideas and even assist if the time is available. Using the analogy of building a house, this reinforcement is similar to putting the roof on the building: finishing off the learning experience. Skills that are useful to employ are critical thinking, creative thinking, organizing, innovation, evaluating, reflecting, predicting outcomes to the visit, and compare and contrast (Brehm 1969:2). If children can translate what they learned into their own words or pictures, then your objectives have been met. The materials provided in the pre-trip will be useful here. Follow-up activities can include "discussion, art work, dramatizations, games, materials for bulletin board displays, collections, and photographic displays" (Brehm 1969:78). The activities should include student evaluation of the experience in either written or oral form. The thematic concepts such as fact versus fiction should be used again in the follow-up activities. Follow-up that includes sharing and reviewing of the experiences may create a lasting impression (Swann 1978:3).

CONCLUSIONS

Public education is vital for archaeology, particularly in California where population is dense and funding becoming increasingly limited. School field trips to excavations are an excellent way to reach the public partially because children pass information and enthusiasm on to their parents and friends. To make the most of a field trip, it should be planned in conjunction with the teacher, including pre-visit, visit, and post-visit materials and activities. Attention to children's background knowledge, attention span and maturity level are important. Field trips are a wonderful opportunity for public outreach about archaeology. Creative planning and preparation can help to make the experience more valuable to the student as well as for archaeology. Let's make the most of this opportunity.

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